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Examiner: Kang, Insun

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**For: METHOD AND APPARATUS FOR TAILORING VOICE PROMPTS OF AN  
INTERACTIVE VOICE RESPONSE SYSTEM**

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**REPLY BRIEF OF APPELLANT**

This Reply Brief is responsive to the Examiner's Answer mailed May 16, 2006.

## INTRODUCTION

After reviewing the Examiner's Answer, Appellant concludes that the Examiner's Answer appears to be attributing a different meaning of "voice prompt" than is being used in the claims under appeal. Therefore since "voice prompt" has a highly significant role in the claims under appeal, Appellants next discuss the meaning of "voice prompts" as claimed, in order to facilitate an analysis of the arguments presented in Examiner's Answer and by Appellant. Thus, Appellant next discusses the meaning of "voice prompt" and the use of voice prompts in the present invention and in Osder (US Patent 5,493,606).

### Meaning of Voice Prompt

Appellant's specification indicates that a characteristic of a voice prompt is that the voice prompt is capable of being "played" or "spoken" as well as capable of being heard by a listener. Consider, for example, the following citations in Appellant's specification listed in Table 1:

Table 1

No	Location	Text Recited
1	page 4, line 9	"speak the third voice prompt"
2	page 7, line 8	"speaks voice the prompt to the telephone caller"
3	page 7, lines 15-16	"the first voice prompt heard by a telephone caller"
4	page 7, lines 17-18	"voice prompts ... spoken by male and female speakers"
5	page 7, lines 9-13	When interpreting the scope of the present invention, the terms "speech" and "voice prompt" are to be taken broadly, as these terms are intended here to encompass all kinds of audio signals, specifically including music, tones such as "beeps," and sequences of tones, as well as spoken or synthesized words. Consequently, the voice prompts held in the database 130 may include musical components, tones, and sequences of tones as well.

In Table 1, citations 1-4 indicate that a voice prompt is spoken and heard. Citation 5 specifies the broadest possible scope of “voice prompt” in the context of the present invention and indicates that a voice prompt can be played as music in addition to being spoken. Furthermore, the voice prompts of the present invention are pre-recorded (see specification, page 3, line 6; page 6, line 15; page 7, line 4, 16-17), which is consistent with a voice prompt having a capability of being spoken, played, heard, etc.

The Examiner’s Answer has cited Osder (US Patent 5,493,606) as a prior art reference against the claims under appeal. Regardless of how Osder uses “prompts”, the use of “voice prompts” as claimed in light of Appellant’s specification, rather than the meaning of “prompts” in Osder, dictates the meaning of “voice prompts” in Appellants claims. Nonetheless, Osder appears to attribute the same meaning to “prompts” as Appellant’s specification, inasmuch as Osder’s “prompts” have the characteristic of being capable of being “spoken” or “played” as deduced from the following citations in Osder listed in Table 2:

Table 2

No	Location	Text Recited
1	Abstract, lines 4-5	“prompts ... to be spoken”
2	Abstract, lines 7-8	“prompts to be played”
3	col. 3, line 50	“the prompts to be played ”
4	col. 4, line 9	“the prompt to be played ”
5	col. 4, line 18-19	“to play the prompt over the telephone”
6	col. 5, line 52	“playing of the prompt ”
7	col. 28, lines 57-58	“prompts spoken by a man or by a woman”

Thus Table 2 indicates that Osder, in consistency, with Appellant, attributes to a prompt the characteristic of having the capability of being spoken or played.

#### Use of Voice Prompts In Present Invention and Osder

In Appellants' claims and specification, voice prompts are:

pre-recorded (specification, page 3, line 6; page 6, line 15; page 7, line 4, 16-17);  
stored in a database (specification, page 3, line 6); and  
accessed from the database in a novel manner that is distinguished from Osder (specification, page 3, lines 12-16: "As the application program executes and reaches a point that requires a voice prompt, it selects a record of the database by passing a metalanguage variable first to an assignment table that is also held outside the compiled code of the application program. The assignment table assigns a particular value to the metalanguage variable. This value specifies an entry point into the database for recalling a database record which contains the desired voice prompt.").

In contrast, Osder's prompts do not exist in a database, but rather are dynamically generated as needed and then played and/or spoken. The pertinent aspect of Osder's invention, using a software system called Speech Interface to a NAP (SPIN), is illustrated in Osder, FIG. 3, which is described in Osder, col. 6, line 47 - col. 7, line 21.

Osder, FIG. 3, Table 3 (called a "Prompt Definition Table" in Osder in col. 6, lines 54-55) illustrates the prompt definition as an ordered sequence of static and dynamic elements, wherein the static elements have specified values and the dynamic elements will be assigned actual values

at runtime when a SPIN application is executed. See Osder, col. 1, lines 48-57 for a discussion of a prompt being defined by a combination of static and dynamic elements. Generation of the prompt from the prompt definition requires: (1) computation of the actual values of the dynamic elements and their substitution for the dynamic elements; followed by (2) concatenation of the ordered static and dynamic elements to form the prompt such that the formed prompt can be spoken or played.

More specifically, in Osder, FIG. 3, a SPIN application UV10AE invokes a prompt identifier P1000 which points to the definition of the prompt in Prompt Definition Table 3 (i.e., ‘YOU HAVE’ <DYN3> ‘NEW MESSAGES. SENT’ <DYN1>. The character strings ‘YOU HAVE’ and ‘NEW MESSAGES. SENT’ are static elements. The variables <DYN3> and <DYN1> are dynamic elements. Actual values for the dynamic elements of <DYN3> and <DYN1> are computed at runtime through execution of procedures DYN3 and DYN1 respectively (see Table 4 of Osder, FIG. 3) upon invocation by the SPIN application UV10AE. Thus, the prompt does not exist before actual values for the dynamic elements are computed. The prompt is generated from the definition in Table 3 and insertion of the actual values of the dynamic variables in said definition, followed by concatenation of the static and dynamic elements. Therefore, there is no disclosure that the prompt is stored in a database and accessed in the manner claimed by Appellant, since the static and dynamic elements (and not the prompt itself) is stored in the database.

The Examiner’s Answer appears to be arguing that the sequence of static and dynamic elements in Prompt Definition Table 3 of FIG. 3 is the “prompt” claimed by Appellants. However, this argument is not persuasive, because the dynamic elements in Table 3 are abstract

variables not having actual values. Thus, the sequence of static and dynamic elements in Table 3 is incapable of being played or spoken and is therefore not a prompt in accordance with the meaning of “voice prompt” explained *supra*.

Indeed, Osder, col. 6, lines 54-57 supports this interpretation of Osder, Table 3 by reciting: “A Prompt Definition Table 3 illustrates the definition or mapping for the prompt P1000 which has two dynamic elements <DYN3> and <DYNI>.”

Osder, col. 5, lines 42-56 further supports this interpretation of Osder, Table 3, wherein the prompt definition is ‘you have’ <DYN3> ‘new messages’. The preceding prompt definition is not the prompt itself, because Osder, col. 5, lines 54-56 explicitly recites: “If there were five new messages in the mailbox at run time, the prompt would play “you have five new messages””. Thus, the prompt exists after, and not before, the actual value for the dynamic element(s) (“five” in the preceding example) has been computed and subsequently used to generate (via concatenation of ‘you have, ‘five’, ‘new messages’) the prompt “you have five new messages”.

In the alternative, even if Osder considers the sequence of static and dynamic elements in Table 3 of FIG. 3 to be a prompt (which Osder appears not to do as explained *supra*), the meaning of “voice prompt” to be used in construing Appellant’s claims is dictated by Appellant’s claim language in light of the specification. Appellant reiterates that the meaning of “voice prompt” in Appellant’s claims must be consistent with the voice prompt being capable of being spoken, played, heard, etc. to make sense. Note, for example, that voice prompt stored in the database are pre-recorded in Appellant’s claim 1, which cannot be satisfied in Osder by dynamic elements that have no actual values.

The only manner in which the ordered sequence of static and dynamic elements in Osder,

FIG. 3, Table 3 could be a voice prompt is if the ordered sequence of static and dynamic elements consists of exactly one static element which could be subsequently spoken or played without computing values of dynamic elements and without having to concatenate the static and dynamic elements. However, Osder does not teach an embodiment in which the prompt definition consist of exactly one static variable. Rather, Osder, col. 1, lines 48-57 teaches that the prompt definition generally comprises a sequence of static and dynamic elements. In contrast, the pre-recorded voice prompts in Appellant's invention each consist of exactly one pre-recorded static string that is capable of being spoken or played.

Furthermore, claims 3, 4, 8, 11, 12, 16 recite a voice prompt spoken by a speaker, so that the "voice prompt" in claims 3, 4, 8, 11, 12, 16 cannot read on the prompt definition in Osder, FIG. 3, Table 3, at least because the dynamic elements in Table 3 have no values and thus cannot be spoken by a speaker.

## GROUND OF REJECTION 1

Claims 1-2 and 9-10 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Osder *et al.* (US Patent 5,493,606).

Appellant respectfully contends that Osder does not anticipate claim 1, because Osder does not teach each and every feature of claim 1.

### Claims 1-2

Appellant contends that Osder does not teach the following feature of claim 1: “an application program that provides call flow instructions, wherein a call flow instruction that invokes a voice prompt provides a variable that can be read from outside compiled code of the application program; ... ; a database that contains a plurality of pre-recorded voice prompts; and an assignment table that assigns a value to the variable to provide an entry point to the database.”

Osder (col. 6, line 61 - col. 7, line 3) in relation to FIG. 3 explains as follows how a prompt is generated in order to be played by a Network Application: “When the Network Application desires to play prompt P1000 in American English, the Network Application issues an ESP or EMSP command identifying SPIN application UV10AE and prompt P1000 and providing the run time dynamic data for the <DYN3> and <DYN1> dynamic elements. The cardinal number dynamic element is **expanded** utilizing the **MDDP DYN3 procedure** together with the Dynamic Element Table 5. The date and time dynamic element is **expanded** utilizing the **MDDP DYN1 procedure** together with the Dynamic Element Table 5” (emphasis added).

Further, Osder (col. 6, lines 54-60) explains the role of Table 3 in FIG. 3 and the relationship of Table 3 to Table 5: “An American English Prompt Set 2 lists the prompts of the



American English SPIN application UV10AE. A Prompt Definition Table 3 illustrates the definition or mapping for the prompt P1000 which has two dynamic elements <DYN3> and <DYN1>. The SPIN application UV10AE utilizes American English MDDP 4 together with American English Dynamic Element Table 5 in the **expansion** of the dynamic data” (emphasis added).

For the sake of argument, assume that Tables 3 and 5 of FIG. 3 of Osder represent the claimed “database” and that the call flow instruction of the Network Application invokes the prompt definition in Table 3 as pointed to by P1000. Note that P1000 is pointed to by the SPIN application UV10AE. Table 3 contains the static elements (‘YOU HAVE’ and ‘NEW MESSAGES. FIRST MESSAGE SENT ‘) of the prompt. Table 3 also identifies MDDP procedures DYN3 and DYN1 which need to be executed to “expand” the cardinal number dynamic elements <DYN3> and <DYN1>, respectively. Table 4 actually lists the and defines the DYN3 and DYN1 procedures. Table 5 is a table that stores the data (i.e., ‘cardinal number’ and ‘date and time’ values) used to “expand” the dynamic elements <DYN3> and <DYN5>.

Therefore, Osder does not teach “a database that contains a plurality of pre-recorded voice prompts”, since Tables 3 and 5 do not contain the prompt as explained *supra* in the INTRODUCTION section of this Reply Brief. It is only at run time when MDDP procedures DYN3 and DYN4 are executed to “expand” the cardinal number dynamic elements <DYN3> and <DYN5>, respectively, of the prompt (including use of Table 5) to generate the prompt in accordance with the prescription of Table 3. Furthermore, Osder does not teach that the run-time generated prompt is stored in a database, as required by claim 1. Osder teaches only that the generated prompt is “played”.

The Examiner's Answer argues on pages 5-6: "These static and standard/user defined dynamic elements are pre-recorded voice prompt elements in SP1NDB (see fig 3; 5DA). For example, the static element, "you have" in prompt table 3 and the dynamic elements such as cardinal numbers from 0 though 99 in the dynamic element table 5 are pre-recorded prompt elements in these tables stored within SPINDB (Spin Database) (see Fig. 3 and SDA; col. 11 lines 23-32; 40-48 and col. 19 lines 38-67 for detailed information). The corresponding dynamic data element is retrieved to be played at run time as necessary (col. 20 lines 41-57) from the dynamic element table within SPIN database that maintains the prompts (Osder, "The PRO screen 210 is used to create and maintain prompts in SPINDB," col. 19 lines 16-18)."

In response, Appellant agrees with the Examiner's Answer that the static elements are stored in Table 3 and the dynamic element *values* are stored in Table 5, as shown in Osder, FIG. 3. However, the static elements and dynamic element values by themselves are not a prompt. A prompt is the result of concatenating the static elements and the dynamic element values according to a prompt definition appearing in Table 3 of Osder, FIG. 3.

Note that the dynamic element values in Table 5 are not identified with any specific dynamic elements of a prompt definition in Table 3. An association between specific dynamic element values in Table 5 with the dynamic elements in a given prompt definition from Table 3 is not established until runtime during execution of the SPIN application program, and Osder does not teach that a prompt resulting from this association is stored in a database. Therefore, since the prompt does not exist (and thus cannot be spoken or played) until this association is established, it follows that there is no disclosure in Osder of "a database that contains a plurality of pre-recorded voice prompts" as required by claim 1. Therefore, Appellant respectfully

maintains that the aforementioned argument by the Examiner's Answer is not persuasive.

In addition, Osder does not teach "an assignment table that assigns a value to the variable to provide an entry point to the database".

The Examiner's Answer argues on page 5: "As clearly can be seen in Fig.3 of Osder's reference, the SPIN Id values (UV10AE, UV10SP etc in table 1) are the entry points to the pre-recorded' prompt elements (Osder, col. 28 lines 30-40) "for selectively playing the prompts either in American English, Spanish ...etc (col. 8 lines 32-36)."

In response, Appellant respectfully contends that if the SPIN ID values UV10AE, UV10SP. ... represent the claimed "value" providing an entry point into the database and if Osder, FIG. 3, Table 1 is the claimed "assignment table", then Osder does not disclose a **"variable" to which the values UV10AE, UV10SP... are assigned and which can be read from outside the compiled code of the application program**, as required in claim 1. The Examiner's Answer has not identified any such "variable" in Osder and, indeed, Appellant contends that Osder does identify any such "variable" as required in claim 1. Therefore, Appellant respectfully maintains that the aforementioned argument by the Examiner's Answer is not persuasive.

Based on the preceding arguments, Appellant respectfully maintains that Osder does not anticipate claim 1, and that claim 1 is in condition for allowance. Since claim 2 depends from claim 1, Appellant contends that claim 2 is likewise in condition for allowance.

### Claims 9-10

With respect to claim 9, the Examiner's Answer states: "Per claim 9, it is the method version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above."

In response, Appellant traverses the rejection of claim 9 based on Appellant's arguments presented *supra* in conjunction with claim 1 in relation to the rejection under 35 U.S.C. §102(b).

In addition, Appellant contends that Osder does not teach the following feature of claim 9: "reading a database record that includes a digitally encoded voice prompt, wherein the database record is identified by the value assigned to the variable".

The Examiner's Answer argues on page 8: "It is noted that data is stored in the form of records describing entities and their attributes.. Each record consists of a collection of related data values or items. For the American English prompt in Osder, the "American English" record representing an American English entity and each field value in the record specifies some attribute of that record. The American English prompt set which is the record of American English prompt entity in Fig 3 identified by "UV10AE" includes the associated attributes such as static and dynamic elements. Therefore, the American English prompt record consists of a collection of related static and dynamic element attributes."

In response, Appellant notes that the Examiner's Answer is referring to a record of Table 3 in Osder, FIG. 3, wherein Table 3 comprises the prompt definition in terms of an ordered sequence of static and dynamic elements. As explained *supra*, the ordered sequence of static and dynamic elements in a record of Table 3 is not a voice prompt because: (1) values for the

dynamic elements do not appear in Table 3; and (2) the static and dynamic elements in Table 3 are individual elements not concatenated together to form a voice prompt.

Moreover, even if a record in Table 3 is a voice prompt (which it isn't), Osder still does not teach **reading a database record** from Table 3 as required by claim 9. Although the elements in a record of Table 3 must be accessed to implement Osder's invention, said elements could be accessed individually from Table 3 rather than being read collectively as a record. Osder does not teach reading a record of Table 3. Therefore, Appellant respectfully maintains that the aforementioned argument by the Examiner's Answer is not persuasive.

Based on the preceding arguments, Appellant respectfully maintains that Osder does not anticipate claim 9, and that claim 9 is in condition for allowance. Since claim 10 depends from claim 9, Appellant contends that claim 10 is likewise in condition for allowance.

## **GROUND OF REJECTION 2**

Claims 3-8 and 11-16 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Osder *et al.* (US Patent 5,493,606).

Since claims 3-8 depend from claim 1, which Appellant have argued *supra* to be patentable under 35 U.S.C. §102 over Osder, Appellant maintains that claims 3-8 are not unpatentable under 35 U.S.C. §103(a) over Osder.

Since claims 11-16 depend from claim 9, which Appellant has argued *supra* to be patentable under 35 U.S.C. §102 over Osder, Appellant maintains that claims 11-16 are not unpatentable under 35 U.S.C. §103(a) over Osder.

In addition as explained *supra* in the INTRODUCTION section of this Reply Brief, claims 3, 4, 8, 11, 12, 16 recite a voice prompt spoken by a speaker (i.e., first speaker, second speaker in claims 3 and 11; male speaker, female speaker in claims 4 and 12; same speaker in claims 8 and 16). Appellant has argued *supra* in that the prompt definition in Table 3 of Osder, FIG. 3 does not represent the claimed “voice prompt” in independent claims 1 and 9. Moreover, the prompt definition in Table 3 of Osder most certainly cannot represent the claimed “voice prompt” in claims 3, 4, 8, 11, 12, 16, because the dynamic elements in Table 3 have no values and thus cannot be spoken by a speaker, as specifically recited in claims 3, 4, 8, 11, 12, 16. Therefore, the reliance in the Examiner’s Answer on the ordered sequence of static and dynamic in Table 3 of Osder, FIG. 3, as representing the claimed “voice prompt” is not persuasive for claims 3, 4, 8, 11, 12, 16.

In addition with respect to claims 5-6, 8, 13-14, and 16, Appellant respectfully contends that the Examiner's argument for modifying Osder by features specific to claims 5-6, 8, 13-14, and 16 is not persuasive, as explained next..

### Claims 5 and 13

Appellant asserts that Osder does not teach or suggest the following feature of claims 5 and 13: "wherein the database includes a first voice prompt having a first level of formality and a second voice prompt having a second level of formality, wherein the first level of formality and the second level of formality are different".

The Examiner's Answer argues on page 11: "it is noted that simply giving different level of formality is not patentably distinct. The specification states that vocal, dialect, or linguistic characteristics of voice prompts are to "improve customer relations in national or international scope (specification, page 2). Simply, any level' of formality for a prompt can be used as a user wishes. Osder's prompt management system provides a capability to create and modify the prompts and the elements of the prompts to be played (col. 4 lines 1-5; "speaks a different language or dialect," "prompts spoken by a man or by a woman," col 28 lines 30-61). Therefore, as addressed in the previous office action, the modification of Osder is obvious for different personal preferences and purposes."

In response, Appellants assert that the claimed feature of "wherein the database includes a first voice prompt having a first level of formality and a second voice prompt having a second level of formality, wherein the first level of formality and the second level of formality are different" does not read on and is not obvious over Osder's disclosure of ""speaks a different

language or dialect," "prompts spoken by a man or by a woman".

#### Claims 6 and 14

Appellant asserts that Osder does not teach or suggest the following feature of claims 6 and 14: "wherein the database includes a voice prompt that includes music".

The Examiner's Answer argues on pages 11-12: "it is noted that simply using music is not patentably distinct. The specification states that vocal, dialect, or linguistic characteristics of voice prompts are to "improve customer relations in national or international scope (specification, page 2). Simply, any sound (i.e. music, animal, human voice) fore prompt can be used as a user wishes. Osder's prompt management system provides a capability to create and modify the prompts and the elements of the prompts to be played (col. 4 lines 1-5; "speaks a different language or dialect," "prompts spoken by a man or by a woman," col. 28 lines 30-61). Therefore, as addressed in the previous office action, the modification of Osder is obvious for different personal preferences and purposes."

In response, Appellants assert that the claimed feature of "wherein the database includes a voice prompt that includes music" does not read on and is not obvious over Osder's disclosure of "'speaks a different language or dialect," "prompts spoken by a man or by a woman".

#### Claims 8 and 16

Appellant asserts that Osder does not teach or suggest the following feature of claims 8 and 16: "wherein the database includes a first voice prompt and a second voice prompt spoken by the same speaker, wherein the first voice prompt and the second voice prompt convey the same



meaning, and wherein the first voice prompt and the second voice prompt differ in wording”.

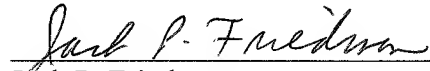
The Examiner’s Answer argues on page 13: “it is noted that simply using a different expression such as a dialect is not patentably distinct. The specification states that vocal', dialect, or linguistic characteristics of voice prompts are to "improve customer relations in national or international scope (specification, page 2). Simply,, any voice wording can be used as a user wishes. Osder's prompt management. system provides a capability to create and modify the prompts and the elements of the prompts to be played (col. 4 lines 1-5; "speaks a different language or dialect," "prompts spoken by a man or by a woman," col. 28 lines 30-61). Therefore, as addressed in the previous office action, the modification of Osder is obvious for different personal preferences and purposes.”

In response, Appellants assert that the claimed feature of “wherein the database includes a first voice prompt and a second voice prompt spoken by the same speaker, wherein the first voice prompt and the second voice prompt convey the same meaning, and wherein the first voice prompt and the second voice prompt differ in wording” does not read on and is not obvious over Osder’s disclosure of ““speaks a different language or dialect," "prompts spoken by a man or by a woman”.

**SUMMARY**

In summary, Appellant respectfully requests reversal of the March 25, 2005 Office Action rejection of claims 1-16.

Respectfully submitted,

A handwritten signature in cursive script, reading "Jack P. Friedman", is written over a horizontal line.

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